

# **FEDERAL GRANT OPPORTUNITIES**

*updated 08/28/09*

*\*new opportunities or changes highlighted\**

## **Open grants & deadlines:**

- **Building America Energy Efficient Housing Partnerships** *(August 27, September 30) \*updated dates\**
- **Topical Collaborations in Nuclear Theory** *(September 1)*
- **Training Program Development for Commercial Building Equipment Technicians, Building Operators, and Energy Commissioning Agents/Auditors** *(September 1)*
- **Community Renewable Energy Deployment** *(September 3)*
- **Energy Training Partnership Grants** *(September 4)*
- **Annual Phase I Small Business Innovation Research (SBIR) Small Business Technology Transfer (STTR)** *(September 4)*
- **Systems Level Technology Development, Integration, & Demonstration for Efficient Class 8 Trucks (SuperTruck) and Advanced Technology Powertrains for Light-Duty Vehicles (ATP-LD)** *(September 9)*
- **Resource Assessment & Interconnection Level Transmission Analysis & Planning** *(September 14)*
- **Development of Algal/Advanced Biofuels Consortia** *(September 14)*
- **Federal Loan Guarantees for Projects that Employ Innovative Energy Efficiency, Renewable Energy, & Advanced Transmission & Distribution Technologies** *(September 14, 2009-August 24, 2010; November 13, 2009-December 31, 2010)*
- **Federal Loan Guarantees for Electric Power Transmission Infrastructure Investment Projects** *(September 14, October 26, 2009—January 25, 2010)*
- **Pathways Out of Poverty** *(September 29)*
- **Expansion of Infrastructure for Higher Ethanol Blends** *(October 4)*
- **Local Energy Assurance Planning (LEAP) Initiative** *(October 8)*
- **Impact Aid Discretionary Construction Program** *(October 8)*

- **Green Your School** *(October 9)*
- **Emerging Frontiers in Research & Innovation 2010** *(October 9, November 13, March 31, 2010)*
- **Solar America Cities Technical Outreach** *(October 15)*
- **Baseload Concentrating Solar Power Generation** *(October 15)*
- **Fall 2009 EPA Science to Achieve Results (STAR) Fellowships for Graduate Environmental Study** *(October 22)*
- **Smart Grid Investment Grant Program** *(October 23, November 4; February 10, March 3) \*updated dates\**
- **Small Business Technology Transfer Program Phase I Solicitation FY 2010** *(November 17)*
- **CHE-DMR-DMS Solar Energy Initiative** *(December 8, 2009; March 10, 2010)*

## **ARRA – Building America Energy Efficient Housing Partnerships**

FOA # DE-FOA-0000099

- Application due for Area 1: August 27, 2009
- Application due for Area 2: September 30, 2009
- \$2.5 million floor; no ceiling
- Eligible applicants: All domestic entities, but federal agencies, FFRDC contractors, and nonprofits as described in section 501(c)(4) of IRC of 1986 that engaged in lobbying after 12/31/95
- 20% cost share of total allowable cost of project
- Visit <http://www.fedconnect.net/> for additional information
  
- *Area of Interest 1: Building America Teams*
  - Industry teams to continue partnerships Building America has established to implement research and technical support programs for new and existing homes
  - \$10 million expected to be available
  - 2-3 awards expected
  - Up to \$5 million per year for up to 5 years
  - 5 year period of performance
  
- *Area of Interest 2: Building America Retrofit Teams*
  - Industry teams to stimulate the existing home retrofit market through research and technical support to increase the efficiency gains and reduce the cost of retrofits
  - \$15 million expected to be available
  - 2-4 awards expected
  - Up to \$5 million per two year award
  - 2 year period of performance

## **Topical Collaborations in Nuclear Theory**

Funding Opportunity Announcement # DE-PS02-09ER09-24

- Application due by September 1, 2009
- See <http://www.grants.gov/> for additional information
- Topical collaborations are fixed-term, multi-institution collaborations established to investigate a specific topic in nuclear physics of special interest to the community
- See FOA for list of 17 areas of interest
- Anticipated \$6 million available over 5 years, starting in FY 2010
- Anticipated that 2-3 topical collaborations will be established for a period of no more than 5 years
- Collaboration expected to be supported at \$300,000-\$500,000 per year
- Cost sharing not required
- Joint funding and bridging positions are anticipated and will be considered favorably (universities, non-profit organizations, FFRDCs, including DOE National Laboratories)
- Eligible applicants: All domestic entities but federal agencies, FFRDC contactors, and non-profits as described in 501(c)(4) of Internal Revenue Code of 1986 that engaged in lobbying after 12/31/95

## **ARRA – Training Program Development for Commercial Building Equipment Technicians, Building Operators, and Energy Commissioning Agents/Auditors**

FOA # DE-FOA-0000118

- Application due by September 1, 2009
- \$7.5 million expected to be available
- 10-30 awards expected
- No floor or ceiling
- 2 year period of performance
- Cost share not required but encouraged
- Eligible applicants: all entities except federal agencies, FFRDC contractors, and nonprofits as described in 501(c)(4) of IRC of 1986 that engaged in lobbying after 12/31/95
- Visit <http://www.fedconnect.net/> for additional information
  
- Objective: Projects that focus on developing training programs for building specialists
- FOA not intended for actual deployment of training program(s) or training personnel, but for development of training program(s) and commercial planning
- Applicant must propose an activity under each task:
  - Project management plan
  - Integration plan
  - Curricula deficiency/developmental needs analysis
    - Energy efficiency knowledge gaps in existing programs
  - Curricula development
  - Consolidated training material
  - Certification/accreditation plan
  - Commercialization and sustainability plan
- See FOA for training program requirements
  
- *Area 1: Training Programs for Commercial Building Equipment Technicians*
  - Applications sought for development of training programs for commercial building equipment technicians
  - For new and existing buildings
  - Include combination of classroom, online, and on-site training
  
- *Area 2: Training Programs for Commercial Building Operators*
  - Projects that will help achieve the goal of bringing existing buildings up to optimal energy performance level and ensuring that new buildings maintain the expected optimal level of performance

- *Area 3: Training Programs for Commercial Building Energy Commissioning Agents/Auditors*
  - Goal: that energy commissioning agents and auditors participating in programs learn how to best operate commercial buildings

## **ARRA – Community Renewable Energy Deployment**

FOA # DE-FOA-0000122

- Application due by September 3, 2009
- \$21.45 million expected to be available
- \$21.45 million ceiling; \$5 million floor
- 50% cost share required
- 1-4 expected awards at \$5 million - \$7 million price range
- 3 year period of performance
- Eligible applicants: State and local governments, Indian tribes, and Tribal Energy Resource Development organizations or groups
- Purpose: to improve knowledge and to promote acceleration of market adoption of renewable energy technologies
- Eligible technologies: electric or thermal energy generated from solar, wind, biomass, landfill gas, ocean (tidal, wave, current, & thermal), geothermal, or new hydroelectric generation capacity achieved from increased efficiency or additions of new capacity at an existing hydroelectric project, as defined in EAct 2005

## **ARRA – Energy Training Partnership Grants**

FOA # SGA/DFA PY 08-18

- Application due by September 4, 2009
- Webinar on July 13 at <http://www.workforce3one.org/>
- \$100 million expected available for 20-30 projects at \$2-\$5 million/project
  - Approximately \$25 million of total funds available will be reserved for projects in communities impacted by automotive-related restructuring
- Visit <http://www.grants.gov/> for additional information
- Grant for training and placement services in energy efficiency and renewable energy industries for workers affected by national energy and environmental policy and individuals in need of updated training related to energy efficiency and renewable energy industries
- Focus on connecting target populations, including automobile and automobile-related industries affected by significant restructurings
- Training for careers in:
  - Energy efficient building, construction, and retrofit industries
  - Renewable electric power industry
  - Energy efficient and advanced drive train vehicle industry
  - Biofuels industry
  - Deconstruction and materials use industry
  - Energy efficiency assessment industry serving residential, commercial, or industrial sectors
  - Manufacturers that produce sustainable products using environmentally sustainable processes and materials
- Eligible entities:
  - Private non-profits that must apply in one of two categories:
    - National Labor Management Organizations with local networks
      - Examples: Training fund, training trust fund, or education trust fund with joint participation from employers and labor organizations on its executive board (or comparable governing body); a formalized agreement must be made between the employer and labor organization to operate joint program(s) in multiple sites across the country through state, local, or regional networks affiliated with the non-profit entity
    - Statewide or local non-profit partnerships
      - Local or statewide non-profits with joint partnership of labor organizations, employers, or industry organizations, Workforce Investment Boards
  - Must work with labor organizations, employers, and Workforce Investment Boards



- Must propose strategic partnerships with the following:
  - Labor organizations
  - Employers and industry organizations
  - Local workforce investment boards (which are ineligible applicants, but must be included in the application)
- Suggested partners include:
  - Education and training community
  - Federal partners such as DOL/ETA's Office of Apprenticeship
  - State partners, including State energy offices, weatherization offices, environmental agencies, utility boards
  - Faith-based and community organizations
- Partnerships must incorporate training activities that:
  - Address skills needed in targeted industries
  - Support participants' career advancement
  - Take place at times and locations that are convenient and easily accessible
  - As appropriate, include paid work experience activities that allow participants to learn occupational skills on the job
  - Integrate training activities with supportive services to help participants overcome barriers to employment, and as appropriate, result in pre-existing industry recognized degree or certificate
- Proposed activities include:
  - Occupational training, on-the-job and customized training, and developing registered apprenticeship and pre-apprenticeship programs in energy efficiency and renewable energy industries
  - Supportive services that will allow individuals to participate in training
- May propose projects using a small part of grant funds on activities that support worker training and placement such as:
  - Instructor education and/or staff training that will deliver and administer registered apprenticeship programs or other training and education programs that lead to employment
  - Where appropriate materials don't exist for the following, develop or modify:
    - Curricula for training
    - Apprenticeship guidelines
    - Industry-recognized degrees or certificates

## **ARRA – Annual Phase I Small Business Innovative Research (SBIR) Small Business Technology Transfer (STTR)**

FOA # DE-PS02-09ER09-27

- Application due by September 4, 2009
- Visit <http://www.grants.gov/> for additional information
- Small businesses with strong research capabilities in science or engineering are encouraged to apply
- Objectives:
  1. To increase private sector commercialization of technology developed through DOE-supported research & development (R&D)
  2. To stimulate technological innovation in the private sector
  3. To improve the return of investment from federally-funded research for economic and social benefits to the nation
- Differences between SBIR & STTR programs:
  - STTR grants must involve substantial cooperative research collaboration between the small business and a single research institution
  - SBIR permits substantial collaboration between the small business and other organizations, including research institutions
  - In SBIR, collaboration is optional
  - In STTR, collaboration is required and must be cooperative in nature
  - Refer to FOA for definitions
- \$8.5 million expected to be available for new Phase I awards
- \$150,000 ceiling; no floor
- 60 expected awards
- 6 month period of performance, with start date in December 2009
- Cost sharing permitted but not required, and will not be an evaluation factor in consideration of Phase I proposal
- Research or R&D must be performed in U.S. in Phases I & II
- Each grant application must be submitted to only one topic and within it, to only one subtopic; DOE will not assign topics
- If entity wants to submit application to both programs, the grant applications that include a substantial amount of cooperative research collaboration (at least 30%) with a single research institution may be considered in both programs
- Restrictions
  - SBIR: minimum 67% of research or analytical effort must be carried out by small business applicant during Phase I; 33% may be performed by an outside party (consultants or sub-contractors); in Phase II, minimum 50% of research or analytical effort must be carried out by applicant
  - STTR: 40% of research or analytical effort must be allocated to small business applicant and at least 30% allocated to a single research institution (Phases I & II)

- Phase I:
  - Grants during Calendar Year (CY) 2009 up to \$150,000
  - Purpose: to evaluate the scientific or technological merit and feasibility of ideas that appear to have commercial potential
  - Important goal: to commercialize DOE-supported R&D
- Phase II:
  - Principal R&D
  - Only previous Phase I grantees are eligible to compete for continuation
  - Awards expected to be made during Fiscal Year (FY) 2010
  - Funding contingent on demonstration of adequate progress, evaluation of programmatic priorities, and availability of funds
- Phase III:
  - Intended that non-SBIR capital be used by the small business to pursue commercial applications of the R&D
    - SBIR/STTR funding pays for research or R&D meeting DOE objectives identified by DOE (Phases I & II); non-SBIR capital provides follow-on developmental funding to meet commercial objectives (Phase III)
- Federal agencies may award non-SBIR/STTR funded follow-on grants or contracts for:
  - Products or processes that meet the mission needs of those agencies
  - Further research or R&D
- Eligibility for SBIR
  - Only U.S. small business concerns (SBCs) are eligible to submit SBIR applications
  - Joint ventures (as defined in FOA) may apply, provided the entity created also qualifies as a small business
  - SBC meets all of the following criteria:
    - Organized for profit, located in U.S.
    - In the legal form of an individual proprietorship, partnership, limited liability company, corporation, joint venture, association, trust or cooperative, except that where the form is a joint venture, there can be no more than 49% participation by foreign business entities in joint venture
    - At least 50% owned and controlled by 1+ individuals who are citizens or permanent resident aliens in U.S., or must be a for-profit business concern that is at least 51% owned and controlled by another for-profit concern that is at least 51% owned and controlled by 1+ individuals who are citizens or permanent resident aliens of the U.S.
    - Has, including affiliates, not more than 500 employees and meets regulatory requirements found in 13 C.F.R. Part 121

- Eligibility for SSTR
  - Only U.S. SBCs are eligible to submit
  - SBC, at time of award for both Phases I & II STTR awards, meets criteria:
    - Organized for profit, with place of business located in U.S., which operates primarily in U.S. or makes significant contribution to U.S. economy through taxes or use of American products, materials, or labor
    - In legal form of an individual proprietorship, partnership, limited liability company, corporation, joint venture, association, trust, or cooperative, except that where the form is a joint venture, there can be no more than 49% participation by foreign business entity in joint venture
    - At least 51% owned and controlled by 1+ citizens or permanent resident aliens in U.S., except in joint venture, where each entity must be 51% owned and controlled by 1+ citizen(s) or permanent resident alien(s) in U.S.
    - Has, including affiliates, no more than 500 employees and meets other requirements in 13 C.F.R. Part 121
- Can contact Small Business Administration Size District Office at <http://www.sba.gov/size/> for additional information

**ARRA – Systems Level Technology Development, Integration, and Demonstration for Efficient Class 8 Trucks (SuperTruck) and Advanced Technology Powertrains for Light-Duty Vehicles**

FOA # DE-FOA-0000079

- Application due by September 9, 2009
- Eligible applicants: All, except federal agencies, FFRDC contractors, non-profits as described in 501(c)(4) of Internal Revenue Code of 1986 that engaged in lobbying after December 31, 1995
- See <http://www.fedconnect.net/> for additional information
- *Area 1: Systems Level Technology Development, Integration, and Demonstration for Efficient Class 8 Trucks*
  - Develop and demonstrate a 50% total increase in vehicle freight efficiency measured in ton-miles per gallon
  - At least 20% of improvement through the development of heavy duty diesel-engine capable of achieving 50% Brake Thermal Efficiency (BTE) on a dynamometer under a load representative of a level road at 65 mph
  - Identify key pathways to achieving long-term goal of developing a 55% efficient (BTE) heavy duty diesel engine; must meet 2010 emission standards and be commercially viable
  - \$90 million - \$160 million available; 3-5 expected awards
  - Ceiling: \$80 million (DOE share \$40 million)
  - Floor: \$40 million (DOE share \$20 million)
- *Area 2: Advanced Technology Powertrains for Light Duty Vehicles*
  - Goal: To accelerate development of a cost-competitive engine and powertrain systems for light-duty vehicles capable of attaining at least 25% fuel economy improvement for gasoline fueled vehicles and at least 40% fuel economy for diesel fueled vehicles while meeting future emissions standards
  - \$25 million - \$80 million available; 3-6 expected awards
  - Ceiling: \$30 million (DOE share \$15 million)
  - Floor: \$4 million (DOE share \$2 million)

## **ARRA – Resource Assessment & Interconnection Level Transmission Analysis & Planning**

FOA # DE-FOA-0000068

- Application due by September 14, 2009
- Estimated funding up to \$60 million; approximately 6 awards
- Period of performance for 3-5 years
- Eligibility: All domestic entities except DOE/NNSA National Laboratory contractors, other federal agencies, non-DOE Federally Funded Research and Development Center contractors, and non-profits as described in 501(c)(4) of Internal Revenue Code of 1986 that engaged in lobbying after December 31, 1995.
- Visit <http://www.fedconnect.net/> for additional information
- Objective: to facilitate development or strengthening of capabilities in each of 3 interconnections serving lower 48 states, to prepare analyses of transmission requirements under a broad range of alternative futures and develop long term interconnection-wide transmission expansion plans
  
- *Topic A: Interconnection-Level Analysis & Planning*
  - Work to be performed must cover entire interconnection
  - Analyses and planning must be done in transparent manner, open to participation by state and federal officials, representatives from ISOs, RTOs, utilities, and relevant stakeholder bodies or NGOs
  - Must establish a multi-constituency steering group; 1/3 of members shall be state officials
  - Modeling tools and databases used and developed will be public, as will all events and meetings of study groups
  - Work performed shall give appropriate attention to merits of alternative configurations of the interconnection's Extra High Voltage (EHV) AC & DC network
  - Work shall give special attention to technological uncertainties that could have major effects on transmission requirements, such as the prospects for offshore wind generation, ocean energy, batteries for plug-in electric vehicles, on-site photovoltaic, carbon capture and sequestration, and advanced nuclear technologies
  - May include supporting analyses or topics such as variable generation integration studies, training of utility system planners and operators on variable generation and interconnection planning, reliability analyses of alternate large transmission configurations

- Long term transmission plans shall satisfy all reliability standards that have been approved by the Federal Energy Regulatory Commission. Must achieve the following objectives:
  - Consider all available technologies for electricity generation, energy storage, transmission, end-use energy efficiency, demand resources, and management of transmission and distribution-level facilities
  - Satisfy all state and federal requirements for renewable energy goals, energy efficiency goals, and goals for reducing greenhouse gases
  - Minimize overall long-term impacts of electricity supply activities on environment
  - Provide a path for efficient grid development
- First version of interconnection-level plan(s) to be delivered to DOE by June 30, 2011; updated plan to be delivered by June 30, 2013
- *Topic B: Cooperation Among States on Electric Resource Planning and Priorities*
  - Purpose: to facilitate dialogue and collaboration among states in respective interconnections and enable them to develop more consistent and coordinated input and guidance for regional and interconnection-level analyses and planning to be done under Topic A
  - 3 interconnections – Western, Eastern, & Texan; see FOA for Western & Texan information
  - *Cooperation Among States in Eastern Interconnection on Electric Resource Planning and Priorities*
    - Identify Eastern energy zones of interest for low or no carbon electricity generation
    - Propose studies on key issues related to reliable integration of variable renewable into Eastern interconnection, studies on availability of baseload renewable, and other low carbon resources
    - Develop other inputs as needed to go into the interconnection-level analyses prepared under Topic A
    - Provide insight into economic and environmental implications of the alternative electricity futures and their associated transmission requirements developed for the Eastern Interconnection under Topic A
    - Demonstrate (and develop if necessary) a process for reaching decisions and consensus appropriate for an interconnection-wide entity representing all states and provinces in Eastern Interconnection to participate in development and updating of long-term interconnection-level plan under Topic A

## **ARRA – Development of Algal/Advanced Biofuels Consortia**

FOA # DE-FOA-0000123

- Application due by September 14, 2009
- Purpose: to increase viability and deployment of renewable energy technologies, spurring the creation of domestic bio-industry, and resulting in a dramatic reduction in dependence of imported oil
- Application required from a consortia to involve specific scientific, engineering, system design, analysis, and project management disciplines; consortia should include mix of U.S. industry, academia, and government and/or non-governmental laboratories
- \$85 million expected to be available
- No floor
- Ceiling
  - Topic Area 1 (Algae Consortium/Consortia): \$50 million
  - Topic Area 2 (Advanced Biofuels Consortium): \$35 million
- Eligible applicants in consortia
  - As lead: Institutions of higher education, non-profit or for-profit entities, state and local governments, Indian Tribes and Tribal Energy Resource Development Organizations or Groups, and DOE/NNSA National Laboratory Contractors (as defined in EAct of 2005)
  - Consortia members can include any of the above-mentioned entities, other federal agencies, and non-DOE Federally Funded Research & Development Center (FFRDC) Contractors
- Minimum cost share of 20%
  - As low as 10% will be considered, and could be waived for Indian Tribes, with justification
- Visit <http://www.fedconnect.net/> for additional information
  
- *Topic Area 1: Algal Biofuels Consortium/Consortia*
  - May address one or more areas of interest, in whole or in part
  - *Area of Interest 1: Feedstock Supply – Strain Development and Cultivation*
    - To investigate and develop a variety of algal strains from different environments (marine, freshwater, brackish/saline, wastewater)
  - *Area of Interest 2: Feedstock Logistics – Harvesting & Extraction*
    - To include harvesting, dewatering, and extraction of fuel producing lipids and carbohydrates from algae
  - *Area of Interest 3: Conversion/Production – Accumulation of Intermediate and Synthesis of Fuels and Co-Products*
    - To investigate conversion technologies capable of producing biofuels from whole algae



- *Topic Area 2: Advanced Infrastructure Compatible Biofuels Consortium*
  - Projects to develop biomass-based alternative fuels that are capable of being “drop-in” replacements for hydrocarbon-based fuels
  - Goal: to develop new and innovative approaches for the conversion of biomass to advanced biofuels that are infrastructure compatible, going beyond current technical pathways for producing hydrocarbons from biomass feedstock
  - Anticipated that 4-6 strategies will be investigated
  - Per U.S. Dept. of Energy, it is “highly desirable” that the technology proposed for development by the Advanced Biofuels Consortium be advanced to stage where it is ready to undergo Process Development Unit (PDU) scale testing by the end of year three

## **ARRA - Federal Loan Guarantees for Projects that Employ Innovative Energy Efficiency, Renewable Energy, & Advanced Transmission & Distribution Technologies**

Funding Opportunity Announcement (FOA) # DE-FOA-0000140

- Application due dates:
  - Parts I & II submission dates depend on rounds
  - Part I: September 14, 2009 – August 24, 2010
  - Part II: November 13, 2009 – December 31, 2010
- Submission of applications for loan guarantees under Title XVII of the Energy Policy Act of 2005 in support of debt financing for projects in the U.S. that employ energy efficiency, renewable energy, and advanced transmission and distribution technologies that constitute new or significantly improved technologies that are not a commercial technology
- DOE will make up to \$8.5 billion in loan guarantee authority available
- Despite the due dates, the solicitation will remain open until the aggregate \$8.5 billion in loan guarantee authority is fully obligated
- Visit <http://www.fedconnect.net/> to view the full FOA, and consult <http://www.energy.gov/>, <http://www.whitehouse.gov/omb/> or <http://www.recovery.gov/> for additional information
- Only 3 categories of projects that begin construction no later than 9/30/11 are eligible under Section 1705 of Title XVII and may have their credit subsidy costs covered by appropriated funds under the Recovery Act
  1. Renewable energy systems, including incremental hydropower, that generate electricity or thermal energy and facilities that manufacture related components
  2. Electric power transmission system projects, including upgrading projects
  3. Leading edge biofuel projects that will use technologies performing at the pilot or demonstration scale that the Secretary determines are likely to become commercial technologies and will produce transportation fuels that substantially reduce life-cycle greenhouse gas emissions compared to other transportation fuels
- Eligible projects in categories listed below and which fall within 1 of the 2 distinct project types described:
  1. Alternative fuel vehicles
  2. Biomass
  3. Efficient electricity transmission, distribution, and storage
  4. Energy efficient building technologies and applications
  5. Geothermal
  6. Hydrogen and fuel cell technologies
  7. Energy efficiency projects
  8. Solar
  9. Wind & hydropower

- Technology categories for 1705 eligible projects are limited to renewable energy systems projects, electric power transmission systems projects, and leading edge biofuels projects
- Per DOE, eligible projects under categories 1, 4, 6, & 7 generally do not constitute 1705 eligible projects for which the credit subsidy costs may be paid for out of funds appropriated under the Recovery Act to pay for the costs of loan guarantee issued under the Section 1705 program
- Project types: manufacturing or stand-alone; see FOA for list of primary goals and objectives for these project types

## **ARRA – Federal Loan Guarantees for Electric Power Transmission Infrastructure Investment Projects**

FOA # DE-FOA-0000132

- Submission due dates:
  - Part I: September 14, 2009
  - 1<sup>st</sup> Round Part II: October 26, 2009
  - 2<sup>nd</sup> Round Part II: December 10, 2009
  - 3<sup>rd</sup> Round Part III: January 25, 2010
- Purpose: Submission of applications for loan guarantees from U.S. Department of Energy under Section 1705 of Title XVII of the Energy Policy Act of 2005 in support of debt financing for transmission infrastructure investment projects in the U.S.
- ARRA provides that \$5,965,000,000 in appropriated funds be made available until expended to pay credit subsidy costs of loan guarantees issued under Section 1705 of Title XVII for certain renewable energy systems, electric transmission systems, and leading edge biofuels projects
- Eligible projects
  - Shall consist of a complex electric transmission systems project located in U.S. that utilizes a commercial technology; is reasonably likely, at the time of the submission of the Part I application, to commence construction on/before 9/30/11
  - Project cannot be financed from private sources on standard commercial terms
  - Project must meet at least one of the following criteria:
    - Involves new or upgraded lines of at least 100 mi. of 500 kilovolts or higher or 150 mi. of 345 kV
    - Project has at least 30 mi. of transmission cable under water
    - Project has high voltage direct current (DC) component
    - Project is a major interregional connector
    - Project designated as a National Interest Electrical Transmission Corridor by DOE under EAct of 2005
    - Project is associated with offshore generation
    - Project mitigates a substantial reliability risk for a major population center
    - A set of improvements to an integrated system within a state or region that together aggregate to meet criteria
  - Please see FOA for additional requirements and for information on eligible lenders

## **ARRA – Pathways Out of Poverty**

FOA # SGA/DFA PY 08-19

- Application due by September 29, 2009
- Webinar on July 14, 2009 at <http://www.workforce3one.org/>
- \$150 million expected available
  - \$3 million - \$8 million available for national grantees (see description below)
  - \$2 million - \$4 million available for local grantees
- Cost share is not required, but leveraged resources are strongly encouraged
- Visit <http://www.grants.gov/> for additional information
- 2 types of applicants to be funded:
  - National non-profits with networks of local affiliates or coalition members
    - Considered national if:
      - Deliver services through networks of local affiliates, coalition members, or other established partners like faith-based organizations
      - These partners have the ability to provide services in 4 or more states
      - Must serve communities located in at least 2 states, with a total of 3-7 communities served
      - Will be required to fund sub-grants or sub-contracts in each communities
  - Local entities
    - Considered local if:
      - Public organization such as community colleges or workforce development boards or private non-profits whose area is limited to a single sub-state area
      - Must propose a project that serves a single community
- Target population are workers affected by significant auto industry restructuring
- Grant to prepare those individuals for careers in:
  - Energy efficient building construction and retrofit industries
  - Renewable electric power industries
  - Energy efficient and advanced drive train vehicle industry
  - Biofuels
  - Deconstruction and materials use
  - Energy efficient assessment industry serving residential, commercial, or industrial sectors
  - Manufacturers that produce sustainable products using environmentally sustainable processes and materials
- Applicants may propose strategies that train individuals for the following occupations: transportation, green construction, environmental protection, sustainable agriculture (including healthy food production), forestry, and recycling and waste reduction

- Eligible applicants
  - Must have experience serving at least one of the following groups:
    - Unemployed individuals
    - High school dropouts
    - Individuals with criminal records
    - Disadvantaged individuals within areas of high poverty
- Must propose strategic partnerships (1 entity from each of the 5 categories)
  - Non-profits that have direct access to targeted populations
  - Public workforce investment system
  - Education and training community
  - Public and private employers and industry-related organizations
  - Labor organizations
- Strongly encouraged to involve:
  - Public housing agencies
  - Community Action Agencies implementing DOE's Weatherization Assistance Program
  - Organizations implementing ARRA funds that will create or support jobs in energy efficiency or renewable energy industries
  - National, state, or local foundations that focus on assisting participants served through project
  - State and local social service agencies that provide services to those individuals
- Allowable activities include:
  - Classroom occupational training
  - On-the-job training activities
  - Registered apprenticeship and pre-apprenticeship programs
  - Internships
  - Customized training
  - Basic skills – adult basic education, ESL, job readiness
  - Job search and placement services
  - Case management services

## **ARRA – Expansion of Infrastructure for Higher Ethanol Blends**

FOA # DE-FOA-0000125

- Application due by October 4, 2009
- Visit <http://www.fedconnect.net/> for additional information.
- 4-year period of performance
- Purpose: to facilitate the increased use of higher ethanol blends up to E85 through infrastructure expansion and targeted outreach
- Eligibility
  - Institutions of higher education
  - Non- and for-profit entities
  - State and local governments
  - Consortia of entities 1-3
- Cost share of 50% for Topic Area 1; no cost share for Topic Area 2 (but strongly encouraged)
  - For ARRA recipients: non-federal cost share for demonstration and commercial application activities must be at least 25% of total allowable costs for private industry recipients; the non-federal cost share must be at least 10% for academic institutions, non-profit organizations, Indian Tribes or Tribal Energy Resource Development Groups, and state and local governments
- *Topic Area 1: Refueling Infrastructure for Higher Ethanol Blends*
  - Projects will expand the infrastructure at retail fuel locations to accommodate ethanol blends up to E85
  - Projects may include modifications, upgrades, or expansion of existing infrastructure at retail stations, or the creation of new infrastructure to accommodate higher ethanol blends up to E85
  - Projects: upgrades to existing dispensing infrastructure, addition of new dispensing infrastructure, modifications or replacement of underground storage tanks, or the addition of increased storage capacity for ethanol or ethanol blends at a retail station
  - Projects that include electronic card readers with updated product codes to track the amount of ethanol dispensed will receive higher consideration
  - Proposed projects must result in a minimum of additional 5 dispensers or pumps capable of dispensing ethanol blends up to E85
  - Corridors that provide fueling no more than 100 mi. apart and projects that concentrate the availability of blends up to E85 at a targeted geographic area are strongly encouraged
  - Up to 25% of federal portion of funding in individual projects may be used for permanent signage (highway or street level directional signs)
  - \$3.5 million expected for Area 1 at \$50,000 - \$200,000 per project
  - Cost share of 50% required

- *Topic Area 2: Outreach for Higher Ethanol Blends*
  - Project seeks to facilitate the development of a national campaign to inform the public on the benefits, safety, and use requirements of higher ethanol blends up to E85
  - Projects that exhibit potential for future growth without federal funding are encouraged
  - Projects that include materials as part of the dispenser display showing fuel energy content, mileage impact, costs per mile, and greenhouse gas reductions are encouraged
  - DOE is interested in projects that include a component focused on providing accurate, unbiased information to the media and public
  - \$2 million expected for Area 2 at \$250,000 - \$1 million per project



## **ARRA – Local Energy Assurance Planning (LEAD) Initiative**

FOA # DE-FOA-0000098

- Application due by October 8, 2009
- \$10.5 million expected to be available
- \$60,000 floor; \$300,000 ceiling
- 50 expected awards, based on population
- No cost share
- Objectives
  1. To strengthen and expand local government energy assurance planning and resiliency
  2. To reduce impacts from energy supply disruptions
  3. To create jobs
- Focus on building local energy assurance capability to allow cities to better coordinate and communicate state-wide, regionally, and with one another on energy security and reliability
- See FOA at <http://www.fedconnect.net/> for considerations while proposing projects
- Eligible applicant is a U.S. city that is eligible if:
  - City government is included in latest U.S. Census of Governments as a currently incorporated government
  - City government has governance structure with elected official and governing body
  - City government has authority to implement eligible activities under FOA

## **ARRA – Impact Aid Discretionary Construction Program**

- Application due by October 8, 2009
- Visit <http://www.grants.gov/> for additional information
- Applications available at <http://e-grants.ed.gov/>
- \$59.4 million estimated available
- 24 expected awards in \$50,000 - \$5 million range
- 36 month period of performance
  
- Purpose: to provide grants for emergency repairs and modernization of school facilities to certain local educational agencies that submitted timely applications eligible for funding under either Section 8002 or Section 8003 of the Elementary Secondary Education Act of 1965 as amended for Fiscal Year (FY) 2008.
- In addition to this requirement, the total assessed value of real property available that may be taxed for school purposes should be less than \$100 million or has an average assessed value per pupil less than the state average assessed value per pupil
- To consider in the application:
  - The need for project/severity of problem to be addressed by the project
  - How the problem threatens the health or safety of the occupants
  - The extent to which project will use energy efficient and recyclable materials, and the cost savings associated with these materials
  - See the announcement for additional considerations.

## **Green Your School**

- NOT a federal government opportunity, but offered through the Student Conservation Association
- Visit <http://www.thesca.org/green-your-school/> for additional information
- 3 awards
- Projects must have been started after August 1, 2008
- Submission begins April 1, 2009
- Submission ends October 9, 2009
- Winners to be announced November 15, 2009
- Project requirements
  - Must be completed by a student
  - Has or will improve the environmental health of the school
  - Is sustainable
  - Is of high quality
  - Has engaged the community

## **Emerging Frontiers in Research & Innovation (EFRI) 2010**

- Letter of intent due October 9, 2009
- Preliminary proposal due November 13, 2009
- Full proposal due March 31, 2010
- Information webcast on September 17, 2009 at <http://www.nsf.gov/eng/efri/>
- See <http://www.nsf.gov/pubs/2009/nsf09606/nsf09606.pdf>
- \$29 million expected to be available in FY 2010, pending the availability of funds
  - Each team may receive up to \$500,000 per year up to 4 years, pending availability
  - 14, 4-year awards expected
- Cost sharing not required
- Eligibility: U.S. academic institutions which perform research and with degree-granting educational programs in disciplines normally supported by NSF; these organizations are eligible to be the lead organization
  - Applicants are encouraged to form synergistic collaborations with government labs, industrial researchers, and scientists and engineers at foreign organizations where appropriate
- Program seeks proposals with potentially transformative ideas that represent an opportunity for a significant shift in fundamental engineering knowledge with a strong potential for long-term impact on national needs or a grant challenge
- *Renewable Energy Storage (RESTOR)*
  - Fundamental experimental and theoretical research needed to develop a transformative understanding of transport and reaction mechanisms and to uncover the underlying principles that govern the complex and interrelated mechanisms of electron and ion transfers, material decomposition, and energy conversion processes for large scale storage
  - 5 elements to be addressed:
    - R1: Cost effectiveness and technical feasibility of a large scale (10 MW minimum) energy storage capability of a solar and/or wind energy conversion site
    - R2: Identification of key existing barriers in achieving goals in R1
    - R3: Multidisciplinary approaches needed to overcome the barriers identified in R2 in order to achieve the goals in R1, including alternative/contingency plans when the main proposed approaches fail. Interdisciplinary synergies in the form of well-integrated systems approach to research are vital.
    - R4: Outcomes and impacts the proposed work will have on the EFRI topic as well as other applications
    - R5: Potential impact of the proposed work to address major societal needs, to revolutionize the area of large scale energy storage/generation, as well as to improve U.S. competitiveness in the global economy through advanced technology development

- *Science in Energy & Environmental Design (SEED): Engineering Sustainable Buildings*
  - Engage engineers, architects, and physical, biological, and social scientists to develop fundamental concepts to create the breakthrough innovations in building materials, models, and theories that will lay the foundation for the next generation of advanced sustainable building systems
  - Breakthrough research needed in: Materials and Sensing, Modeling and Simulation, and Concepts for Anatomy and Interdependence
  - Required SEED Elements:
    - S1: Define a unifying intellectual focus for synergistic innovation involving interdisciplinary research on the EFRI SEED topic or their integration
    - S2: Provide a unique framework through which components of diverse disciplines can connect and relate to each other
    - S3: Address the need for interdisciplinary research
    - S4: Address the anticipated research outcome and questions on how the resulting new discoveries will provide answers to problems leading to transformative science for next generation sustainable buildings
    - S5: Identify new motivations, new instruments and tools, and new validation vehicles for advanced sustainable vehicles

## **Solar America Cities – Technical Outreach**

FOA # DE-FOA-0000086

- Application due by October 15, 2009
- Expected \$10.5 million to be available, allocated in phases over five years
- \$6 million ceiling for phase 1; \$500,000 floor
- DOE expects one award, but may consider multiple awards
- Eligible applicants include all U.S. domestic entities except for FFRDC contractors, and non-profits as described in Internal Revenue Code of 1986 that engaged in lobbying activities after 12/31/95
- Cost sharing is not required
- Visit <http://www.fedconnect.net/> for additional information
- Suggested reading: *Solar Powering Your Community: A Guide for Local Governments* (<http://www.solaramericacities.energy.gov/resources>)
- DOE intends to select 1 or more partner organizations to provide a maximum number of local governments with actionable information that will enable them to accelerate solar energy deployment
- The recipient will proactively address the solar-related information needs of significant local markets and provide a mechanism by which local governments can receive and share information on solar energy
- A comprehensive approach is needed to include solar regulations, financial incentives, workforce training, and utility and community engagement
- Potential activities include:
  - Working to develop sets of solar-related information most relevant to local governments
  - Provide strategic information on solar energy to local governments and stakeholders
  - Create effective forums for sharing lessons and best practices developed by DOE's 25 Solar America Cities with other local governments
  - Targeted presentations for local governments

## **Baseload Concentrating Solar Power Generation**

FOA # DE-FOA-0000104

- Application due by October 15, 2009
- \$15 million expected to be available in Fiscal Year 2010 and \$19.5 million - \$37.5 million to be available in FY 2011 – FY 2014
- Ceiling based on topic and phase; no floor
- Eligible applicants: higher education institutions, non- and for-profit entities, state and local governments, Indian Tribes or Tribal Energy Resource Development Organizations, and consortia consisting of any of the above entities
- Visit <http://www.fedconnect.net/> for additional information
- Objective: To develop and evaluate concentrating solar power (CSP) components and/or systems that could lead to development of utility-scale baseload CSP power plants with a capacity factor of 75% capable of generating electricity at costs competitive with fossil-fired generators, and estimated 8-9 cents/kWh adjusted for real 2009 dollars
  
- *Topic 1: Research & Development (R&D) Concept and Component Feasibility Studies*
  - Research one or more approaches to achieving the baseload CSP power generation through novel concepts or advance in key system components
  
- *Topic 2: Baseload CSP System Study*
  - Applicants will have a specific CSP system approach for which they propose to perform a feasibility analysis, engineering design, and prototype testing

## **Fall 2009 EPA Science to Achieve Results (STAR) Fellowships for Graduate Environmental Study**

FON (Funding Opportunity Number) # EPA-F2009-STARI1 (Green Engineering/Building/Chemistry/Materials)

- Application due by October 22, 2009
- This is a U.S. Environmental Protection Agency (EPA) program that offers graduate fellowships for master's & doctoral level students in environmental fields of study
- See <http://www.grants.gov/> or [http://www.epa.gov/ncer/rfa/2009/2009\\_star\\_gradfellow.html](http://www.epa.gov/ncer/rfa/2009/2009_star_gradfellow.html) for additional information
- \$4.5 million expected to be available for all awards
- 120 expected awards at \$37,000 per year per fellowship
- Cost share not required
- Master's level – 2 year period of performance; 3 year period of performance for doctoral level (usable for 4 years)
- Eligibility:
  - Must attend a fully-accredited U.S. college or university
  - Must be a citizen of U.S. or its territories, or be lawfully admitted to the U.S. for permanent residence
- EPA-F2009-STARI1 – Green Engineering/Building/Chemistry/Materials
  - Interests in and investigations on the social science and economics of sustainability, pollution, prevention, waste reduction, green engineering, green chemistry, green materials, recycling, and resource conservation; green buildings
- There are several other areas of interest, more related to the environment; please see RFA for those areas
  - Applicants must identify a single topic and FON



## **Smart Grid Investment Grant Program**

FOA # DE-FOA-0000058

- Letter of intent due date (required for each phase in which an applicant intends to submit an application) and application due date:
  - ~~Phase 1: July 16, August 6~~
  - Phase 2: October 23, November 4
  - Phase 3: February 10, March 3
- Funding
  - \$3.4 billion expected to be available
  - 2 categories to be funded:
    - Smaller projects in which the federal share is in the \$300,000 to \$20 million range (40% of SGIG funding)
    - Larger projects in which federal share is in the \$20 million to \$200 million range (60% of SGIG funding)
  - Minimum 50% cost share required
- 3 year period of performance
  - DOE expects to complete award of projects by September 30, 2010 and to make awards in October 2009, March 2010, and June 2010
  - Costs of awards must be invoiced and paid by September 30, 2015
- Eligible applicants
  - Electric power companies (investor-owned utilities, municipal utilities, public utility districts, electric cooperatives, regional organizations such as independent system operators, transmission organizations, and national-level utility organizations), state, county, local, or municipal government agencies, universities and colleges, electricity consumers singly or aggregated together (residential, commercial, industrial, and agricultural customer classes), appliance manufacturers, electrical equipment manufacturers, software providers, and commercial and information services providers, and other private companies (retail electricity suppliers, energy services companies, independent power producers, demand response services providers, metering services providers, project developers, electricity marketers, consultants)
  - Federal agencies, including power marketing administrations, TVA, and USPS are eligible in supporting roles only
  - DOE's national laboratories and FFRDCs are ineligible

- Purpose of program: to accelerate the modernization of the nation's electric transmission and distribution systems, and to promote investment in smart grid technologies, tools, and techniques which increase flexibility, functionality, interoperability, cyber-security, situational awareness, and operational efficiency; to enable measurable improvements from accelerated achievement of a modernized electric transmission and distribution system, including:
  - Reliability of the electric power system
  - Electric power system costs and peak demand
  - Consumer electricity costs, bills, and environmental impacts
  - Clean energy development and greenhouse gases
  - Economic opportunities and new jobs
- Topic areas:
  - Equipment manufacturing
  - Customer systems
  - Advanced metering infrastructure
  - Electric distribution systems
  - Electric transmission systems
  - Integrated and/or crosscutting systems
- Eligible projects are required to support or advance one or more of the smart grid functions as listed in EISA Section 1306 (d)
- For eligible investments for SGIG funds, see EISA, Section 1306 (b)
- For non-eligible investments, see EISA, Section 1306 (c)
- Visit <http://www.fedconnect.net/> for additional information

### **Small Business Technology Transfer Program Phase I Solicitation FY 2010 (STTR)**

- Proposal due: November 17, 2009
- See <http://www.nsf.gov/pubs/2009/nsf09605/nsf09605.pdf> for additional information
- 35 estimated awards, pending availability
- Proposals may be submitted for funding of up to \$150,000
- Cost share not required
- 1 year period of performance
- Eligible applicants: U.S. commercial organizations, especially small businesses with capabilities in scientific or engineering research or education
- The primary objective of the STTR Program is to increase the incentive and opportunity for small firms to undertake cutting edge, high risk, high quality scientific, engineering, or science and engineering education research that would have a high potential economic payoff if the research is successful.
- STTR requires researchers at universities and other research institutions to play a significant intellectual role in the conduct of each STTR project. University researchers should join forces with a small company to spin off their commercially-promising ideas while they remain primarily employed at the research institution.
- Proposers will conduct research and development (R&D) on projects that:
  - Provide evidence of a commercially viable product, process, device, or system, and
  - Meet an important social or economic need

### **CHE-DMR-DMS Solar Energy Initiative**

- Preliminary proposal due December 8, 2009
- Full proposal due March 10, 2010
- See <http://www.nsf.gov/pubs/2009/nsf09604/nsf09604.pdf> for additional information
- 3-10 expected awards at \$500,000/year; anticipated total funding for program is \$7 million
- Cost sharing not required
- Purpose: to support interdisciplinary efforts by groups of researchers to address the scientific challenges of highly efficient harvesting, conversion, and storage of solar energy
- Research will investigate novel methods for solar energy harvesting and conversion with potential efficiency substantially beyond the current technology
- Eligible applicants: universities or two- or four-year colleges accredited in and having a campus in the U.S., acting on behalf of faculty members
  - There must be 3+ co-principal investigators: 1 researcher in chemistry, 1 researcher in materials, and 1 researcher in mathematical sciences
- Applicants should ensure the project doesn't overlap other ongoing federally-funded research projects